

PRODUCT	ROM/EPROM FLASH	RAM	TIMER/ COUNTERS	I/O PINS	SPEED (MHz)
8051 PRODUCT LINE					
8031AH	ROMLESS	128	2	32	12
8051AH	4K ROM	128	2	32	12
8051AHP	4K ROM	128	2	32	12
8751H	4K EPROM	128	2	32	12
8751BH	4K EPROM	128	2	32	12
8052 PRODUCT LINE					
8032AH	ROMLESS	256	3	32	12
8052AH	8K ROM	256	3	32	12
8752BH	8K EPROM	256	3	32	12
80C51 PRODUCT LINE					
80C31BH	ROMLESS	128	2	32	12, 16
80C51BH	4K ROM	128	2	32	12, 16
80C51BHP	4K ROM	128	2	32	12, 16
87C51	4K EPROM	128	2	32	12, 16, 20
80C51FA PRODUCT LINE					
80C51FA	ROMLESS	256	3	32	12, 16
83C51FA	8K ROM	256	3	32	12, 16
87C51FA	8K EPROM	256	3	32	12, 16, 20
8XC51FB PRODUCT LINE					
83C51FB	16K ROM	256	3	32	12, 16, 20
87C51FB	16K EPROM	256	3	32	12, 16, 20
8XC51FC PRODUCT LINE					
83C51FC	32K ROM	256	3	32	12, 16, 20
87C51FC	32K EPROM	256	3	32	12, 16, 20
80C52/C54/C58 PRODUCT LINE					
80C32	ROMLESS	256	3	32	12, 16
80C52	8K ROM	256	3	32	12, 16
80C54	16K ROM	256	3	32	12, 16, 20
87C54	16K EPROM	256	3	32	12, 16, 20
87C58	32K EPROM	256	3	32	12, 16, 20
8XF51FC PRODUCT LINE					
88F51FC	32K FLASH	256	3	32	12, 16
8XF51FC	4K FLASH/ 28K ROM	256	3	32	12, 16
80C51GB PRODUCT LINE					
80C51GB	ROMLESS	256	3	48	12, 16
83C51GB	8K ROM	256	3	48	12, 16
87C51GB	8K EPROM	256	3	48	12, 16
80C51SL PRODUCT LINE					
80C51SL	8K ROM	256	2	87	12, 16

INTEL MCS®-51 FAMILY SUPPORT:

Emulators — ICE-51 GB/PC for 80C51GB

ICE-51FX/PC for all other products

Software — ASM-51 and PL/M-51 (all products)

Design Support: ACE 51Flash (Avail. 6/91)

Evaluation Boards — EV80C51FC for 8X51FC, EV80C51GB for 80C51GB, EV80C51FX

PROCESS	PACKAGE	KEY FEATURES
HMOS HMOS HMOS HMOS HMOS	P, N, D P, N, D P, N, D D P, N	BOOLEAN PROCESSING BOOLEAN PROCESSING PROTECTED ROM ONE LEVEL MEMORY LOCK TWO LEVEL MEMORY LOCK
HMOS HMOS HMOS	P, N, D P, N, D P, N, D	THREE TIMER COUNTERS THREE TIMER COUNTERS TWO LEVEL MEMORY LOCK
CHMOS CHMOS CHMOS CHMOS CHMOS	P, N, D, S P, N, D, S P, N P, N, D P, N, D	POWER SAVE MODES POWER SAVE MODES PROTECTED ROM TWO LEVEL MEMORY LOCK
CHMOS CHMOS CHMOS	P, N, D, S P, N, D, S P, N, D	PROGRAMMABLE COUNTER ARRAY (PCA) PROGRAMMABLE COUNTER ARRAY (PCA) PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS CHMOS	P, N, D P, N, D	PROGRAMMABLE COUNTER ARRAY (PCA) PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS CHMOS	P, N, D, S P, N, D, S	PROGRAMMABLE COUNTER ARRAY (PCA), PROG. CLOCK OUT PROGRAMMABLE COUNTER ARRAY (PCA), PROG. CLOCK OUT
CHMOS CHMOS CHMOS CHMOS CHMOS	P, N, S P, N, S P, N P, N, D P, N, D, S	THIRD TIMER/COUNTER IS UP/DN THIRD TIMER/COUNTER IS UP/DN THIRD TIMER/COUNTER IS UP/DN THIRD TIMER/COUNTER IS UP/DN THIRD TIMER/COUNTER IS UP/DN
CHMOS CHMOS	P, N P, N	4K/28K FLASH BLOCKS, PCA, PROG. SERIAL PORT 4K/28K FLASH BLOCKS, PCA, PROG. SERIAL PORT
CHMOS CHMOS CHMOS	N N N	8 CHANNEL 8-BIT A/D, 2 PCA, 6 I/O PORTS 8 CHANNEL 8-BIT A/D, 2 PCA, 6 I/O PORTS 8 CHANNEL 8-BIT A/D, 2 PCA, 6 I/O PORTS
CHMOS	KU	CUSTOMIZABLE KEYBOARD CONTROL

PACKAGES: P = 40L PDIP, N = 44L PLCC, S = 44L QFP (Quad Flat Pack), KU = 100L QFP,
D = 40L CERDIP, (For 80C51GB, N = 68L PLCC)**NOTE:** Programmable Counter Array (PCA) allows configuration of PWM's, Compare/Capture Modules,
High-Speed Outputs and Watchdog Timer.

CHMOS is a patented Intel Process.

PRODUCT	ROM/ EPROM	DATA RAM	CODE RAM	TIMER/ COUNTERS	A/D CHANNELS	I/O PINS	I/O TYPE
8098 PRODUCT LINE							
8098	ROMLESS	232	NO	2	4	32	HSI/O
8398	8K ROM	232	NO	2	4	32	HSI/O
8798	8K EPROM	232	NO	2	4	32	HSI/O
80C198 PRODUCT LINE							
80C198	ROMLESS	232	NO	2	4	34	HSI/O
83C198	8K ROM	232	NO	2	4	34	HSI/O
87C198	8K OTP	232	NO	2	4	34	HSI/O
80C194	ROMLESS	232	NO	2	NO	34	HSI/O
83C194	8K ROM	232	NO	2	NO	34	HSI/O
8096BH PRODUCT LINE							
8096BH	ROMLESS	232	NO	2	NO	48	HSI/O
8396BH	8K ROM	232	NO	2	NO	48	HSI/O
8097BH	ROMLESS	232	NO	2	8	48	HSI/O
8397BH	8K ROM	232	NO	2	8	48	HSI/O
8797BH	8K EPROM	232	NO	2	8	48	HSI/O
8095BH	ROMLESS	232	NO	2	4	32	HSI/O
8395BH	8K ROM	232	NO	2	4	32	HSI/O
8795BH	8K EPROM	232	NO	2	4	32	HSI/O
8097JF PRODUCT LINE							
8097JF	ROMLESS	232	256	2	8	48	HSI/O
8397JF	16K ROM	232	256	2	8	48	HSI/O
8797JF	16K OTP	232	256	2	8	48	HSI/O
80C196 PRODUCT LINE							
80C196KB	ROMLESS	232	NO	2	8	48	HSI/O
83C196KB	8K ROM	232	NO	2	8	48	HSI/O
87C196KB	8K EPROM	232	NO	2	8	48	HSI/O
80C196TB	ROMLESS	232	NO	2	NO	48	HSI/O
83C196TB	8K ROM	232	NO	2	NO	48	HSI/O
80C196KC	ROMLESS	488	NO	2	8	48	HSI/O
83C196KC	16K ROM	488	NO	2	8	48	HSI/O
80C196MC PRODUCT LINE							
87C196MC	16K EPROM	488	NO	2	13	53	EPA
83C196MC	16K EPROM	488	NO	2	13	53	EPA
80C196KR PRODUCT LINE							
80C196KR	ROMLESS	488	256	2	8	56	EPA
83C196KR	16K ROM	488	256	2	8	56	EPA
87C196KR	16K EPROM	488	256	2	8	56	EPA
80C196JR	ROMLESS	488	256	2	6	41	EPA
83C196JR	16K ROM	488	256	2	6	41	EPA
87C196JR	16K EPROM	488	256	2	6	41	EPA
80C196KQ	ROMLESS	369	128	2	8	56	EPA
83C196KQ	12K ROM	369	128	2	8	56	EPA
87C196KQ	12K EPROM	369	128	2	8	56	EPA
80C196JQ	ROMLESS	360	128	2	6	41	EPA
83C196JQ	12K ROM	360	128	2	6	41	EPA
87C196JQ	12K EPROM	360	128	2	6	41	EPA

INTEL MCS®-96 FAMILY SUPPORT:

Emulators — VLSICETM-96 for 8098 and 8096BH, 8097JF
 ICETM-196KB (PC, /MX and /HX) for 80C196KB, 80C198
 ICE-196KC (/MX and /HX) for 80C196KC
 Software — ASM-96, IC-96 and PLM-96
 Design Support — ACE196, ACE 196KC, TRANS 51-96
 Evaluation Boards — EV8097BH, EV80C196KB, EV80C196KC, EVAL196KR, EV80C196KR
 SBE (Single Board Emulator) — SBE 196KR for 80C196KR/JR/KQ/JQ

SERIAL PORTS	SPEED (MHz)	PROCESS	PACKAGE	KEY FEATURES
1 1 1	12 12 12	HMOS HMOS HMOS	P P P, C	8-BIT BUS VERSION OF 8096 8-BIT BUS VERSION OF 8096 8-BIT BUS VERSION OF 8096
1 1 1 1 1	12 12 12 12 12	CHMOS CHMOS CHMOS CHMOS CHMOS	N, S N, S N N, S N, S	8-BIT BUS VERSION OF C196KB 8-BIT BUS VERSION OF C196KB 8-BIT BUS 8-BIT BUS VERSION OF C196KB 8-BIT BUS VERSION OF C196KB
1 1 1 1 1 1 1	12 12 12 12 12 12 12	HMOS HMOS HMOS HMOS HMOS HMOS HMOS	N N N, U N, U N, R, U P P C	8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH
1 1 1	12 12 12	HMOS HMOS HMOS	N, U N, U N, U	8/16-BIT BUS, CODE RAM 8/16-BIT BUS, CODE RAM 16K PROGRAM 8/16-BIT BUS, CODE RAM 16K PROGRAM
1 1 1 1 1 1 1	10, 12 10, 12 10, 12 10, 12 10, 12 10, 12 16	CHMOS CHMOS CHMOS CHMOS CHMOS CHMOS CHMOS	N, S, U N, S, U N, R, U N, S N, S N, S N	8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS, MORE DATA RAM, PTS 8/16-BIT BUS, CHMOS, MORE DATA RAM, PTS
*	16	CHMOS	N, S, U	PTS, PWM, THREE PHASE WAVEFORM GENERATOR
*	16	CHMOS	N, S, U	PTS, PWM, THREE PHASE WAVEFORM GENERATOR
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS PTS, CODE RAM, 2 SERIAL PORTS

PACKAGES: P = 48L PDIP, C = 48L CERAMIC, N = 68L PLCC, R = 68L LCC, CJ = 68L CERQUAD
 S = 80L QFP (Quad Flat Pack) U = 64L SHRINK DIP
 (Except for 80C198 where N = 52L PLCC)

CHMOS is a patented Intel Process.

*Supported by special PTS mode.



80C186

PRODUCT	SPEED (MHz)	MODULAR DESIGN	POWER MANAGEMENT	PROCESS
80C186/80C188	10, 12.5, 16	NO	POWER SAVE MODE	CHMOS
80C186EA/80C188EA	12.5, 16, 20	YES	STATIC, IDLE, POWERDOWN, POWER SAVE MODES	CHMOS
80C186EB/80C188EB	8, 13, 16	YES	STATIC, IDLE, POWERDOWN MODES	CHMOS
80L186EA/80L188EA	8	YES	STATIC, IDLE, POWERDOWN, POWER SAVE, 3V MODES	CHMOS
80L186EB/80L188EB	8	YES	STATIC, IDLE, POWERDOWN, 3V MODES	CHMOS
80186/80188	8	NO	NONE	HMOS

INTEL 80C186 FAMILY SUPPORT:

Emulators — ICE™-18X for 80C18X, 8018X, ICE™-18XEA for 80C18XEA
ICE™-18XEB for 80C18XEB
Software — ASM-86, PL/M-86, PASCAL-86, FORTRAN-86, iC-86 and DB86 (Software Debugger)
Evaluation Boards — EV80C186, EV80C186EB
Numeric Coprocessors — 80C187 for 80C186, 80C186EA and 80C186EB, 8087 for 80186 and 80188

80960

PRODUCT	SPEED (MHz)	INSTRUCTION CACHE	FPU	INTERRUPT CONTROLLER	ON-CHIP MMU
80960CA	16, 25, 33, 40	1024 BYTES	NO	8 DIRECT INPUTS	NO
80960MC	16, 20	512 BYTES	YES	4 DIRECT INPUTS	YES
80960KA	10, 16, 20, 25	512 BYTES	NO	4 DIRECT INPUTS	NO
80960KB	10, 16, 20, 25	512 BYTES	YES	4 DIRECT INPUTS	NO
80960SA	10, 16	512 BYTES	NO	4 DIRECT INPUTS	NO
80960SB	10, 16	512 BYTES	YES	4 DIRECT INPUTS	NO

INTEL 80960 FAMILY SUPPORT:

Emulators — ICE960KB (Supports A and KD Packages), ICE960SB (Supports N and S Packages)
Software — iC960 C-Compiler, GNU C-Compiler, ADA-960MC ADA-Compiler, ASM960 Macro Assembler
Operating Systems — Vx960, iRMK™
Evaluation Boards — EV80960CA, QT960 and EVA-960KB for i960™ KA/KB, EV80960SX for i960™ SA/SB
Debuggers — DBCADIC In-Circuit Debugger for i960™, DB960 Retargetable Debugger, DBSIM960SIMCA
Debug Simulator, GDP960 (GNU) Debugger. See SOLUTIONS960 Catalog for more details.

80C186

PACKAGE*	KEY FEATURES
N, R, A, S	3 TIMERS, 2 DMAs, PIC, CHIP SELECTS, REFRESH, POWER SAVE
N, S	3 TIMERS, 2 DMAs, PIC, CHIP SELECTS, REFRESH, POWER SAVE, POWER MANAGEMENT, STATIC
N, S	3 TIMERS, PIC, 2 SERIAL PORTS, 2 I/O PORTS, ENHANCED CHIP SELECTS, REFRESH, POWER MANAGEMENT, STATIC
N, S	SAME AS 80C186EA, BUT WITH 3V OPERATION
N, S	SAME AS 80C186EB, BUT WITH 3V OPERATION
N, R, A	LOW-COST, ORIGINAL HMOS 186 VERSION

PACKAGES: N = 68L PLCC (Except 80L18XEB and 80C18XEB where N = 84L PLCC)
R = 68L LCC, A = 68L PGA, S = 80L QFP (Quad Flat Pack)
*N and S package not in all speeds

80960

PACKAGE	KEY FEATURES
A, KU	32-BIT RISC SUPERSCALAR CPU WITH ON-CHIP DMA AND PROGRAMMABLE BUS SIZE
G, Q	32-BIT RISC MILITARY FAULT TOLERANT CPU
A, KD	32-BIT RISC CPU WITH MULTIPLEXED BUS
A, KD	32-BIT RISC CPU WITH MULTIPLEXED BUS AND IEEE COMPATIBLE FLOATING-POINT
N, S	LOW COST 32-BIT RISC CPU WITH MULTIPLEXED 16-BIT BUS
N, S	LOW COST 32-BIT RISC CPU WITH MULTIPLEXED 16-BIT BUS AND IEEE FLOATING-POINT

PACKAGES: A = 168L PGA for i960™ CA
A = 132L PGA for i960™ KA/KB
KU = 196L PQFP for i960™ CA, No 33 MHz
KD = 132L PQFP for i960™ KA/KB
G = 132L CPGA for i960™ MC
Q = 164L COFP for i960™ MC
N = 84L PLCC for i960™ SA/SB
S = 80L QFP (EIAJ) for i960™ SA/SB, No 16 MHz

PRODUCT	ROM/EPROM FLASH	RAM	TIMER/ COUNTERS	I/O PINS	SPEED (MHz)
8051 PRODUCT LINE					
8031AH	ROMLESS	128	2	32	12
8051AH	4K ROM	128	2	32	12
8051AHP	4K ROM	128	2	32	12
8751H	4K EPROM	128	2	32	12
8751BH	4K EPROM	128	2	32	12
8052 PRODUCT LINE					
8032AH	ROMLESS	256	3	32	12
8052AH	8K ROM	256	3	32	12
8752BH	8K EPROM	256	3	32	12
80C51 PRODUCT LINE					
80C31BH	ROMLESS	128	2	32	12, 16
80C51BH	4K ROM	128	2	32	12, 16
80C51BHP	4K ROM	128	2	32	12, 16
87C51	4K EPROM	128	2	32	12, 16
80C51FA PRODUCT LINE					
80C51FA	ROMLESS	256	3	32	12, 16
83C51FA	8K ROM	256	3	32	12, 16
87C51FA	8K EPROM	256	3	32	12, 16
8XC51FB PRODUCT LINE					
83C51FB	16K ROM	256	3	32	12, 16
87C51FB	16K EPROM	256	3	32	12, 16
8XC51FC PRODUCT LINE					
83C51FC	32K ROM	256	3	32	12, 16, 20
87C51FC	32K EPROM	256	3	32	12, 16, 20
80C52/C54/C58 PRODUCT LINE					
80C32	ROMLESS	256	3	32	12, 16
80C52	8K ROM	256	3	32	12, 16
80C54	16K ROM	256	3	32	12, 16, 20
87C54	16K EPROM	256	3	32	12, 16, 20
87C58	32K EPROM	256	3	32	12, 16, 20
8XF51FC PRODUCT LINE					
88F51FC	32K FLASH	256	3	32	12, 16
8XF51FC	4K FLASH/ 28K ROM	256	3	32	12, 16
80C51GB PRODUCT LINE					
80C51GB	ROMLESS	256	3	48	12, 16
83C51GB	8K ROM	256	3	48	12, 16
87C51GB	8K EPROM	256	3	48	12, 16
80C152JX PRODUCT LINE					
80C152JA	ROMLESS	256	2	40	12, 16.5
80C152JB	ROMLESS	256	2	56	12, 16.5
80C152JC	ROMLESS	256	2	40	12, 16.5
80C152JD	ROMLESS	256	2	56	12, 16.5
83C152JA	8K ROM	256	2	40	12, 16.5
83C152JC	8K ROM	256	2	40	12, 16.5

PROCESS	PACKAGE	KEY FEATURES
HMOS	P, N, D	BOOLEAN PROCESSING
HMOS	P, N, D	BOOLEAN PROCESSING
HMOS	P, N, D	PROTECTED ROM
HMOS	D	ONE LEVEL MEMORY LOCK
HMOS	P, N	TWO LEVEL MEMORY LOCK
HMOS	P, N, D	THREE TIMER COUNTERS
HMOS	P, N, D	THREE TIMER COUNTERS
HMOS	P, N, D	TWO LEVEL MEMORY LOCK
CHMOS	P, N, D, S	POWER SAVE MODES
CHMOS	P, N, D, S	POWER SAVE MODES
CHMOS	P, N	PROTECTED ROM
CHMOS	P, N, D	TWO LEVEL MEMORY LOCK
CHMOS*	P, N, D, S	PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS	P, N, D, S	PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS	P, N, D	PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS	P, N, D	PROGRAMMABLE COUNTER ARRAY (PCA)
CHMOS	P, N, D, S	PROGRAMMABLE COUNTER ARRAY (PCA), PROG. CLOCK OUT
CHMOS	P, N, D, S	PROGRAMMABLE COUNTER ARRAY (PCA), PROG. CLOCK OUT
CHMOS	P, N, S	THIRD TIMER/COUNTER IS UP/DN
CHMOS	P, N, S	THIRD TIMER/COUNTER IS UP/DN
CHMOS	P, N	THIRD TIMER/COUNTER IS UP/DN
CHMOS	P, N, D	THIRD TIMER/COUNTER IS UP/DN
CHMOS	P, N, D, S	THIRD TIMER/COUNTER IS UP/DN
CHMOS	P, N, D	4K/28K FLASH BLOCKS, PCA, SAMPLES Q1 '91, PRODUCTION Q3 '91
CHMOS	P, N, D	4K/28K FLASH BLOCKS, PCA, SAMPLES Q1 '91, PRODUCTION Q3 '91
CHMOS	N	8 CHANNEL 8-BIT A/D, 2 PCA, WATCH DOG TIMER (WDT)
CHMOS	N	PRODUCTION Q4 '90
CHMOS	N	8 CHANNEL 8-BIT A/D, 2 PCA, WATCH DOG TIMER (WDT)
CHMOS	N, CJ	PRODUCTION Q4 '90
CHMOS	N	8 CHANNEL 8-BIT A/D, 2 PCA, WATCH DOG TIMER (WDT)
CHMOS	N	PRODUCTION Q4 '90
CHMOS	P, N	SDLC/HDLC AND CSMA/CD, 5 I/O PORTS
CHMOS	N	SDLC/HDLC AND CSMA/CD, 5 I/O PORTS
CHMOS	P, N	SDLC/HDLC, 5 I/O PORTS
CHMOS	N	SDLC/HDLC, 5 I/O PORTS
CHMOS	P, N	SDLC/HDLC, 7 I/O PORTS
CHMOS	P, N	SDLC/HDLC AND CSMA/CD, 5 I/O PORTS
CHMOS	P, N	SDLC/HDLC, 5 I/O PORTS

PRODUCT	ROM/ EPROM	DATA RAM	CODE RAM	TIMER/ COUNTERS	A/D CHANNELS	I/O PINS	I/O TYPE
8098 PRODUCT LINE							
8098	ROMLESS	232	NO	2	4	32	HSI/O
8398	8K ROM	232	NO	2	4	32	HSI/O
8798	8K EPROM	232	NO	2	4	32	HSI/O
80C198 PRODUCT LINE							
80C198	ROMLESS	232	NO	2	4	34	HSI/O
83C198	8K ROM	232	NO	2	4	34	HSI/O
87C198	8K OTP	232	NO	2	4	34	HSI/O
80C194	ROMLESS	232	NO	2	NO	34	HSI/O
83C194	8K ROM	232	NO	2	NO	34	HSI/O
8096BH PRODUCT LINE							
8096BH	ROMLESS	232	NO	2	NO	48	HSI/O
8396BH	8K ROM	232	NO	2	NO	48	HSI/O
8097BH	ROMLESS	232	NO	2	8	48	HSI/O
8397BH	8K ROM	232	NO	2	8	48	HSI/O
8797BH	8K EPROM	232	NO	2	8	48	HSI/O
8095BH	ROMLESS	232	NO	2	4	32	HSI/O
8395BH	8K ROM	232	NO	2	4	32	HSI/O
8795BH	8K EPROM	232	NO	2	4	32	HSI/O
8097JF PRODUCT LINE							
8097JF	ROMLESS	232	256	2	8	48	HSI/O
8397JF	16K ROM	232	256	2	8	48	HSI/O
8797JF	16K OTP	232	256	2	8	48	HSI/O
80C196 PRODUCT LINE							
80C196B	ROMLESS	232	NO	2	8	48	HSI/O
83C196B	8K ROM	232	NO	2	8	48	HSI/O
87C196B	8K EPROM	232	NO	2	8	48	HSI/O
80C196T	ROMLESS	232	NO	2	NO	48	HSI/O
83C196T	8K ROM	232	NO	2	NO	48	HSI/O
80C196KC	ROMLESS	488	NO	2	8	48	HSI/O
83C196KC	16K ROM	488	NO	2	8	48	HSI/O
87C196KC	16K EPROM	488	NO	2	8	48	HSI/O
80C196KR PRODUCT LINE							
80C196KR	ROMLESS	488	256	2	8	56	EPA
83C196KR	16K ROM	488	256	2	8	56	EPA
87C196KR	16K EPROM	488	256	2	8	56	EPA
80C196JR	ROMLESS	488	256	2	6	41	EPA
83C196JR	16K ROM	488	256	2	6	41	EPA
87C196JR	16K EPROM	488	256	2	6	41	EPA
80C196KQ	ROMLESS	369	128	2	8	56	EPA
83C196KQ	12K ROM	369	128	2	8	56	EPA
87C196KQ	12K EPROM	369	128	2	8	56	EPA
80C196JQ	ROMLESS	360	128	2	6	41	EPA
83C196JQ	12K ROM	360	128	2	6	41	EPA
87C196JQ	12K EPROM	360	128	2	6	41	EPA

INTEL MCS®-96 FAMILY SUPPORT:

INTEL MCS-96 FAMILY SUPPORT:
Emulators — VLSICE™-96 for 8098 and 8096BH, 8097JF
ICE™-196KB (P/C, /MX and /HX) for 80C196KB, 80C198
ICE-196KC (/MX and /HX) for 80C196KC
Software — ASM-96, IC-96 and PL/M-96
DESIGN SUPPORT — ACE196, TRANS 51-96
*CHMOS is a patented Intel Process.
METAICE is a trademark of Metalink Corp.

■ Indicates new 1990 Products (Available as shown)

MCS® -96

SERIAL PARTS	SPEED (MHz)	PROCESS	PACKAGE	KEY FEATURES
1 1 1	12 12 12	HMOS HMOS HMOS	P P P.C	8-BIT BUS VERSION OF 8096 8-BIT BUS VERSION OF 80961 8-BIT BUS VERSION OF 8096
1 1 1 1 1	12 12 12 12 12	CHMOS CHMOS CHMOS CHMOS CHMOS	N.S N.S N N.S N.S	8-BIT BUS VERSION OF C196KB 8-BIT BUS VERSION OF C196KB 8-BIT BUS, PRODUCTION Q4 '90 8-BIT BUS VERSION OF C196KB 8-BIT BUS VERSION OF C196KB
1 1 1 1 1 1 1 1	12 12 12 12 12 12 12 12	HMOS HMOS HMOS HMOS HMOS HMOS HMOS HMOS	N N N, U N, R, U P P C	8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH 8/16-BIT BUS, REGISTER TO REGISTER ARCH
1 1 1	12 12 12	HMOS HMOS HMOS	N, U N, U N, U	8/16-BIT BUS, CODE RAM 8/16-BIT BUS, CODE RAM 16K PROGRAM 8/16-BIT BUS, CODE RAM 16K PROGRAM
1 1 1 1 1 1 1 1	10, 12 10, 12 10, 12 10, 12 10, 12 16 16 16	CHMOS CHMOS CHMOS CHMOS CHMOS CHMOS CHMOS CHMOS	N, S, U N, S, U N, R, U N, S N, S N, S N CJ	8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS 8/16-BIT BUS, CHMOS, MORE DATA RAM, PTS 8/16-BIT BUS, CHMOS, MORE DATA RAM, PTS 8/16-BIT BUS, CHMOS, MORE DATA RAM, PTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	ALL KR FAMILY PRODUCTION Q4 '90 SAMPLES AVAILABLE NOW PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS
2 2 2	16 16 16	CHMOS CHMOS CHMOS	N N N	PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS PTS, EPA, CODE RAM, 2 SERIAL PORTS

Evaluation Boards – EV8098, EV8097BH, EV80C196KB, EV80C196KC, EVAL196KB

SBE (Single Board Emulator) – SBE 196KR for 80C196KR/JR/KQ/QJ

PACKAGES: P = 48L PDIP, C = 48L CERAMIC, N = 68L PLCC, R = 68L LCC, CJ = 68L CERQUAD
S = 80L QFP (Quad Flat Pack) U = 4L SHRINK DIP
(Except for 80C198 where N = 52L PLCC)

INTEL MCS®-51 FAMILY SUPPORT:

Emulators — ICE-51 GB/PC for 80C51GB
METAICE-152 for 80C152JA/JC
ICE-51FX/PC for all other products
Software — ASM 51 and PL/M 51 (all products)
Evaluation Boards — EV80C51FC for 8X51FC
EV80C51GB for 80C51GB (available Q4 '90)
EV80C51FB (for all other products except 80C152JX)

80186

PRODUCT	SPEED (MHz)	TIMER/ COUNTERS	POWER MANAGEMENT	PROCESS	PACKAGE*
80C186	10, 12.5, 16	3	DYNAMIC	CHMOS	N, R, A, S
80C188	10, 12.5, 16	3	DYNAMIC	CHMOS	N, R, A, S
80C186EB	8, 13, 16	3	STATIC, IDLE & POWERDOWN MODES	CHMOS	N, S
80C188EB	8, 13, 16	3	STATIC, IDLE & POWERDOWN MODES	CHMOS	N, S
80186	8, 10	3	NONE	HMOS	N, R, A
80188	8	3	NONE	HMOS	N, R, A

INTEL 80186 FAMILY SUPPORT:

Emulators — ICETM-186 for 80C186, ICETM-188 for 80C188, 12ICE for 80186 and 80188
ICETM18XEB for 80C18XEB
Software — ASM-86, PL/M-86, PASCAL-86, FORTRAN-86, IC-86 and DB86
(Software Debugger)
Numeric Coprocessors — 80C187 for 80C186 and 80C186EB, 8087 for 80186 and 80188

PACKAGES: P = 40L PDIP, N = 44L PLCC, S = 44L QFP (Quad Flat Pack)
D = 40L CERDIP, CJ = 68L CERQUAD
(Except for 80C51GB and 80C152JX where P = 48L PDIP, N = 68L PLCC)

*CHMOS is a patented Intel process
METAICE is a trademark of Metalink Corp.

80186

KEY FEATURES
HMOS 80186 FEATURE SET PLUS DRAM REFRESH AND POWER SAVE MODE HMOS 80188 FEATURE SET PLUS DRAM REFRESH AND POWER SAVE MODE 16-BIT EXTERNAL BUS, 2 SERIAL PORTS, 2 I/O PORTS, PIC, PROGRAMMABLE MEMORY AND CHIP SELECT LOGIC 8-BIT EXTERNAL BUS, 2 SERIAL PORTS, 2 I/O PORTS, PIC, PROGRAMMABLE MEMORY AND CHIP SELECT LOGIC 16-BIT EXTERNAL BUS, 2 DMAs, PIC, PROGRAMMABLE MEMORY AND CHIP SELECT LOGIC 8-BIT EXTERNAL BUS, 2 DMAs, PIC, PROGRAMMABLE MEMORY AND CHIP SELECT LOGIC

Evaluation Boards — EV80C186, EV80C186EB

PACKAGES: N = 68L PLCC, R = 68L LCC, A = 68L PGA, S = 80L QFP (Quad Flat Pack)
(Except 80C18XEB where N = 84L PLCC)
*N and S package not in all speeds